

# NOTES FROM THE ROYAL BOTANIC GARDEN EDINBURGH

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## STUDIES IN THE GESNERIACEAE OF THE OLD WORLD XXVII: NEW SPECIES AND SUBSPECIES OF STREPTOCARPUS

O. M. HILLIARD\* & B. L. BURTT

A revisionary study of *Streptocarpus* has necessitated the naming of some plants previously undescribed. The names are published here so that they may be taken into current use: the plants will be discussed at greater length in the full revision of the genus which, it is hoped, will appear in the near future.

***Streptocarpus confusus* Hilliard subsp. *lebomboensis* Hilliard & Burtt, subsp. nova** a typo floribus majoribus corolla ore minus compressa stigmatibus bilobato differt.

*Corolla* 35–55 mm longa, tubo 25 mm longo usque ad 5 mm diametro, labio inferiore usque ad 30 mm lato, extra albida, limbo pallido-violaceo vel violaceo, ore in littera angusta V inverta compresso.

SOUTHERN AFRICA. Natal-Swaziland border, landward face of the Lebombo mountains near Gwalaweni forest, c. 550 m, 15 xii 1965, *Oatley, Hilliard & Burtt* 3264 (E, NU); Nsubane pass from Ingwavuma to Gollel, 480–540 m, 16 xii 1965, *Oatley, Hilliard & Burtt* 3289 (holo—E, iso—NU), cult. R.B.G. Edinburgh, C. 5069 (E).

NATAL. Ubombo distr., Ubombo, c. 540 m, 13 xii 1965, *Oatley, Hilliard & Burtt* 3211 (E, NU); kloof at immediate summit of Lebombo mountains on route from Mkuze to Jozini, 23 i 1966, *Hilliard & Burtt* 3700 (E, NU), cult. R.B.G. Edinburgh, C. 5130 (E); Jozini Dam, 28 vi 1964, *Strey* 5311 (NH).

This subspecies was first collected by Dr. D. Edwards at the same locality as *H. & B.* 3700, but it flowered cleistogamously in cultivation. It has also been collected near Jozini dam by Dr. L. E. Codd and by R. G. Strey and has been cultivated at Pretoria, at Edinburgh (C. 4956), and at the Natal Herbarium from this source.

\* University of Natal, Pietermaritzburg.

***Streptocarpus erubescens* Hilliard & Burt, species nova** *S. cyanandro* B. L. Burt affinis et floribus persimilibus sed habitu semper unifoliato et corollis extra eglanduloso-pilosis facile distinguitur.

*Herba* unifoliata, fortasse annua, ubique pilis patentibus induta, pilis paucis glandulosis in pagina folii inferiore adsentibus. *Folium* solitarium ad  $150 \times 120$  mm, saepe multo minus, supra fusco-viride, interdum subtus purpurascens, margine crenata, basi cordata rarius cuneata. *Inflorescentiae* 2-3 e basi costae orientes, pauciflorae. *Pedunculus* ad c. 100 mm altus. *Bractae* parvae, lineares, interdum foliaceae. *Pedicelli* 15-30 mm longi. *Calyx* ad basin in segmentis linearibus  $5-9 \times 1$  mm divisus. *Corolla* c. 30-40 mm longa, alba, extra rubro-suffusa limbo et fauce rubro-purpureo notata; tubus anguste infundibuliformis, levissime curvatus, infra (abaxialiter) conspicue sulcato-plicatus, c. 20-25 mm longus, inferne c. 3 mm diam. ad orem 6-7 mm usque diam. ampliatus, in tecto pilis longis multicellularibus aliisque brevioribus glandulosis, in fundo pilis paucis simplicibus clavatis indutus; limbus obliquus; labium superius lobis duobus suborbicularibus  $6 \times 6$  mm, inferius 9-12 mm longum lobis  $6-8 \times 5-6$  mm. *Stamina* versus medium tubi orientia; filamenta c. 6 mm longa, alba, superne glandulosa; antherae 1 mm longae, atrocaeruleae; staminodia 2, conspicua, 4 mm longa. *Ovarium* c. 13-15 mm longum pilis patentibus eglandulosis dense pubescens; stylus c. 8 mm longus, ut ovarium pubescens, dorso-ventraliter compressus apice ipso decurvo; stigma capitatum album, papillosum, stomatomorphum. *Capsula* (25-40(-50)  $\times$  c. 2 mm, apiculata, pubescens, plerumque fusco-rubra.

MALAWI. Blantyre, Ndirande Mt., c. 1500 m, 23 iv 1944, *Benson* 101 (K), 30 i 1945, *Benson* 1161 (K); *ibidem*, coll. *Cram*, cult. R.B.G. Edinb., C. 5108 (E); *ibidem*, 1 ii 1967, *Hilliard & Burt* 4657 (holo—E, iso—NU); Soche Hill, c. 1440 m, 2 ii 1967, *Hilliard & Burt* 4658 (E, NU); Zomba plateau, Chifundi Peak, 1770 m, 3 ii 1967, *Hilliard & Burt* 4660; Fort Johnston dist., Mangoche Mt., 1710-1800 m, 12 xii 1963, *Chapman* 2162 (NYAS). MOÇAMBIQUE. Niassa dist.: Vila Cabral, serra de Massangulo (Fe), c. 1450 m, 25 ii 1964, *Torre & Paiva* 10803 (LISC).

***Streptocarpus eylesii* S. Moore subsp. *brevistylus* Hilliard & Burt, subspecies nova** a typo stylo brevior 2-3 mm tantum longo et stigmate plerumque majore praecipue differt. Habitu, ut videtur plerumque minore et saepe (in typo subspeciei sed non semper) plurifoliato, capsulis brevioribus, etiam recedit.

MALAWI. South Vipya. Chikangawa, Wozi Hill, plants several-leaved, under rock outcrops, 6 i 1967, *Hilliard & Burt* 4204 (holo—E, iso—NU); *ibidem*, 28 ii 1965, *Chapman* 2325 (E); *ibidem*, 9 iii 1965, *Greig* 13 (E), cult. in R.B.G. Edinburgh, C. 4946 (E); South Khulamina rocks, plants several-leaved, 7 i 1967, *Hilliard & Burt* 4335 (E, NU); Bimbyai Hill, *Greig*, cult. in R.B.G. Edinburgh, C. 4743 (E).

Also in Northern Zambia and Southern Tanzania.

***Streptocarpus hirticapsa*** B. L. Burtt, *species nova* ex affinitate *S. pumili* B. L. Burtt sed omnibus partibus magis pilosis et praecipue capsula pilis recte patentibus conspicue hirta distincta.

*Herba* parva subunifoliata, acaulis vel caule usque 3 cm alto. *Folium* magnitudine et ambitu sat variabile, exemplaris gratia 14.5 cm  $\times$  3.5 cm, 6 cm  $\times$  4 cm latum, 3.5 cm  $\times$  1.5 cm, marginibus crenato-dentatis, utrinque pilosum. *Pedunculi* e basi folii orientes, solitarii vel bini, raro plures, patentipilosi, pilis superne (et praecipue in pedicellis 12 mm longis) partim glandulosis. *Calyx* in segmentis 5 anguste lanceolatis 2 mm longis fere ad basin divisus, dense hirti-pilosus. *Corolla* 1.3 cm longa, extra parce pilosa, tubo 9 mm, lobo inferiore mediano 4 mm  $\times$  2.5 mm, lateralibus 3.5 mm  $\times$  1.75 mm, superioribus 3 mm  $\times$  1.5 mm, omnibus obtusis. *Filamenta* gracilia, glabra, 1.5 mm longa, 7.5 mm supra corollae basi orientia; antherae 0.75  $\times$  1 mm. *Ovarium* anthesi haud visum. *Fructus* pilis hirtis patentibus dense vestitus, ad 1.5 cm longus, primum stylo ad 1 cm longo terminatus.

RHODESIA. Mombane: Chimanimani Mts., 1200 m, 2 iii 1907, *W. P. Johnson* 244 (K); Vumba, granite cliffs, 1560 m, flower white with mauve lines, 12 iii 1942, *Evelyn Ferrar* 4008 (SRGH); Chimanimani Mts., on both sides of border, in caves of sandstone in shade, flowers lavender with blue spots on lower petals, 7 vi 1949, *H. Wild* 2938, 2938A (SRGH); Melsetter distr., Farm Mutsaarva, 1500 m, walls of deep tunnels found in open grassland, flowers mauve with darker stripes, 6 vii 1950, *S. Thompson* 26 (SRGH); Melsetter distr., 1575 m, 1 ii 1957, *J. B. Phipps* 275 (SRGH); Melsetter distr., Chimanimani Mts., "Stonehenge", 1620-1770 m, under rocky overhangs on mossy softer rock surfaces, often not moist, frequent, white flowers with fine dark purple lines on inside of petals, 3 ii 1958, *A. V. Hall* 334 (SRGH); Melsetter distr., Chimanimani Mts., "Stonehenge" plateau, 1800 m, under sandstone boulders, perennial herb, flowers small white with reddish purple stripes, 8 v 1958, *N. C. Chase* 6908 (holo—K, iso—SRGH).

***Streptocarpus latens*** Hilliard & Burtt, *species nova* ab affini *S. pumilo* corollae tubo subcylindrico et fructu crassiore differt. *S. bolusii* C. B. Cl. dissimilis est corollae tubo ventricosus palato bicarinato, capsulis longioribus.

*Herba* parva, perennis. *Folia* 1-5, usque ad 100  $\times$  35 mm, margine grosse crenato-dentata basi cuneata, supra viridia subtus interdum purpureo-suffusa, utrinque pilis glandulosis et eglandulosis induta, florifera conspicue petiolata, petiolo usque ad 45  $\times$  3 mm pilis glandulosis et eglandulosis conspicue induto. *Inflorescentiae* 2 vel 3 ad apicem petioli, c. 2-10-florae. *Pedunculi* usque ad 60 mm, glandulosi pilis paucis eglandulosis intermixtis; pedicelli c. 10-30 mm longi, uti pedunculi pilosi. *Bractaeae* lineari-lanceolatae, ad 5  $\times$  1 mm. *Calyx* ad basin in segmenta 5 lineari-lanceolata divisus, viridis, glandulosus. *Corolla* c. 16-22 mm longa, alba striis duobus violaceis in labio inferiore et stria flava violaceo-brunneo-maculata in tubo ornata, extra glanduloso-pilosa, intus glabra lineis duobus pilis simplicibus in tubo et pilis paucis supra exceptis; tubus subcylindricus rectus, c. 8-10 mm longus, 3 mm diam., 3-4 mm trans orem; labium superius lobis 2 obovatis, 4-6  $\times$  4-5 mm; labium inferius porrectus, c. 7-11 mm, lobis suborbicularibus 4-6  $\times$  4-6

mm. *Stamina* in triente medio tubi orientia; filamenta 4-5 mm longa, curvata et paullo incrassata sub antheris, alba, glabra; antherae lobi 1 mm longi, albi; staminodia conspicua, 2.5 mm longa. *Ovarium* 3 mm longum, glandulosum; stylus 5 mm longus leviter dorsoventraliter compressus apice incurvus, inferne glandulosus; stigma aequaliter bilabiatum. *Capsula* 11-15 ( $14 \pm 1$ ) mm longa, 2.5 mm diam., conspicue apiculata.

TRANSVAAL. Belfast distr.: 8 miles from Belfast on Stofberg road, 12 xii 1955, *Story* 5350 (holo—PRE); *ibidem*, 28 iv 1959, *Story* 6519 (PRE); *ibidem*, 7 xii 1965, *Burt* 3111 (E, NU); Steenkampsbergen, Dullstroom, 2100-2190 m, 30 xii 1932, *Galpin* 13027 (PRE); Steenkampsbergen, summit c. 2 miles from intersection of Draaikraal-Dullstroom roads, 2195 m, 18 xii 1964, *Hilliard* 2975 (NU).

***Streptocarpus kungwensis*** Hilliard & Burt, *species nova* ex affinitate *S. cooksonii* speciei natalensis et *S. galpinii* speciei transvaalensis; a priori inflorescentia eglandulosa et divaricata, corolla ore minus ampliata, fructibus longioribus, ab altera corollae tubo valde angustiore facile distinguitur.

*Herba* unifoliata, monocarpica. *Folium* tempo florendi c.  $200 \times 170$  mm, in planta culta utrinque dense et breviter pilis erectis acutis induta, in sylvestribus pilis longioribus et (?) haud semper erectis; nervi supra leviter impressa, subtus valde prominentes; margo crenato-dentata. *Inflorescentia* c. 350 mm, divaricata, dense et breviter pubescens. *Pedunculus* c. 100 mm. *Bractaeae* virides, primae  $10 \times 5$  mm, reliquae minores. *Pedicelli* ad 25 mm. *Calycis* segmenta  $6 \times 2$  mm. *Corolla* 35 mm longa, limbo pallide violaceo, palato albo, fauce violaceo lineis duobus lateralibus intensioribus; tubus 17 mm longus, medio 4-5 mm diam., inferne cylindricus, superne leviter ampliatus et deflexus, ore 10 mm diam.; lobi superiores late divergentes, rotundati,  $8 \times 8$  mm; labium inferius 12 mm, lobo medio  $7 \times 10$  mm, lateralibus  $8 \times 9$  mm, omnibus rotundatis. *Stamina* e medio tubi orientia; filamenta 3 mm longa, parce glandulosa; lobi antherarum 1.5 mm. *Ovarium* 11 mm, dense et patenter pubescens; stylus 3 mm, pubescens; stigma stomatomorphum. *Capsula*  $55-60 \times 3$  mm, patenter pubescens.

TANZANIA. Kungwe-Mahali peninsula: c.  $6^{\circ}\text{S}$ ,  $30^{\circ}\text{E}$ , western slopes of Musenabanta, 1350 m, on vertical rock faces in dry gallery forest, 17 viii 1959, *Harley* 9370 (fruit only—K); cult. in R.B.G. Edinburgh, C. 4673 (holo—E).

***Streptocarpus leptopus*** Hilliard & Burt, *species nova* *S. rhodesiano* S. Moore affinis habitu rosulato congruens sed foliis multo minoribus haud lanato-pilosis et ovario glabro recedens.

*Herba* perennis. *Folia* plura, rosulata, oblongo-lanceolata, breviter petiolata, usque ad  $150 \times 20$  mm saepe multo minora, costa et nervis secundariis subtus prominentibus supra impressis, apice obtusa, basicuneata, margine crenata, supra fusco-viridia, subtus saepe purpurascencia, utrinque pilis patentibus pilosa. *Inflorescentiae* 1 vel 2 e petiolo orientes, plerumque biflorae, interdum ad 6-florae. *Pedunculi* tenuissimi, 75 mm usque, pilis paucis patentibus. *Bractaeae* minutae. *Pedicelli* 15 mm usque. *Calyx* ad basin

in segmenta lanceolata pubescentia  $3.5 \times 1$  mm divisus. *Corolla* 14 mm longa, alba maculis purpureis majusculis in palato et fauce notata, extra glabra vel parce glanduloso-pubescent, intus in palato et in tubo pilis simplicibus clavatis praedita; tubus subcylindricus leviter curvatus, 7 mm longus, ore 3 mm diam.; lobi superiores erecti, suborbiculares 1.5 mm longi; labium inferius 6 mm longum, lobis oblongo-ellipticis, c.  $4 \times 2.5$  mm. *Stamina* e triente inferiore tubi orientia; filamenta 3.5 mm longa, sursum leviter incrassata; antherae 1 mm longae; staminodia minuta. *Ovarium* 1.5 mm longum, glabrum, glandulis paucis sessilibus; stylus 4 mm dorso-ventraliter compressus; stigma stomatomorphum. *Capsula* 7–10 mm, stylo persistente.

MALAWI. Mt. Mlanje: Great Ruo Gorge, on mossy rocks and waterfall of tributary stream above dam, 26 i 1967, *Hilliard & Burtt* 4637 (holo—E, iso—NU).

MOÇAMBIQUE. Distr. Milange: Serra Tumbine, c. 1550 m, 19 i 1966, *Correia* 510 (LISC).

***Streptocarpus* (?) *myoporoides*** Hilliard & Burtt, *species nova* insignis ab omnibus congeneris corollae labio superiore 4-lobato inferiore 1-lobato facile distinguitur. Habitu caulibus erectis bifoliis e rhizomate orientibus et inflorescentia capitata etiam ab omnibus aliis longe recedit.

*Herba* perennis, rhizomatosa, caulibus erectis usque ad  $30 \times 8$  mm basi radicanibus apice bifoliatis et inflorescentia pedunculata terminali instructis. *Folia* ambitu elliptica, c.  $150\text{--}250 \times 50\text{--}100$  mm, apice obtusa, basi cuneata, in petiolo brevi decurrentia, margine grosse serrato-dentata, supra molliter pilosa, infra ad nervos tantum pilosa, nervis petioloque rubro-brunneis. *Pedunculus* terminalis, c.  $45\text{--}60 \times 5$  mm, pilis albis dense indutis, foliis duobus oppositis redactis c.  $15 \times 5$  mm valde infra inflorescentia praeditus. *Calyx* fere ad basin in segmenta lanceolata 5 divisus; tria superiora  $11 \times 3$  mm, apice recurvata, lateralia subfalcata, duo inferiora  $13 \times 3$  mm porrecta; omnia venis 3–5 parallelis conspicuis percursa, intus glandulis parvis fuscis, extra pilis crassis praedita, marginibus ciliatis. *Corolla* 25 mm longa, cinabarina, extra pilis crassis appressis, intus pilis glandulosis circum orem et in labio inferiore exceptis glabra; tubus late infundibuliformis e basi contracta oblique erectus, c. 23 mm longus, ore 6 mm diametro, labio superiore galeato e lobis posticis et lateralibus composito (posticis suborbicularibus  $3 \times 3$  mm, lateralibus ellipticis paulo majoribus), labio inferiore e lobo antico solo elliptico c.  $11 \times 5$  mm deflexo. *Stamina* fertilia duo, e triente superiore tubi orientia; filamenta c. 8 mm longa medio paulo incrassata, pilis paucis glandulosis, exserta; antherae lobi 2 mm longi; staminodia lateralia 1 mm longa. *Discus* annularis. *Ovarium* c. 5 mm longum, appresse pubescens; stylus c. 11 mm longus, plus minusve teres, sub galea curvata et paulo exserta, basi pubescens, sursum glabrescens; stigma terminale, stylo vix latius, papillosum et transversaliter sulcatum convexum. *Fructus* ignotus.

MOÇAMBIQUE. Ribaué, serra de Ribaué (Mepalué), c. 1500 m, *Torre & Paiva* 10302 (holo—LISC).

**Streptocarpus nimbicola** Hilliard & Burt, *species nova* facie *S. hirtinervi* notabiliter similis et statu praeflorendi difficiliter distinguitur nisi foliis florituris (in *S. hirtinervi* persaepe conspicue petiolatis, in *S. nimbicola* subsessilibus); floribus tamen ex toto recedit. Quod attinet ad flores *S. nimbicola* *S. polyanthum* Hook. praecipue revocat, ore corollae glanduloso minus compresso distinguitur.

*Herba* rosulata perennis. *Folia* plura, oblonga,  $150 \times 40$  mm usque, apice emarcida, basi cuneata, utrinque appresse argenteo-sericea, margine alte et obtuse serrata; costa nervique subtus prominentia, nervi apice furcati. *Inflorescentiae* 1-3 proxime infra basi laminae orientes, c. 20-florae. *Pedunculi* usque ad 150 mm longi, pilis patentibus induti. *Bractaeae* oblongo-ellipticae, ad  $8 \times 2$  mm. *Pedicelli* 8-30 mm longi, pilis glandulosis vel eglandulosis vel mixtis induti. *Calyx* ad basin in segmentis 5 linearibus c.  $8 \times 1$  mm uti pedicellis pilosis divisus. *Corolla* c. 15-30 mm longa; extra pilosa pilis glandulosis vel eglandulosis, intus praecipue circum orem dense glandulosa, tubus 5-7 mm longus, subcylindricus, basi bulbosus et illic 3 mm diam., supra medium abrupte decurvus, fauce lateraliter compressus; limbus obliquus planus; lobi superiores suborbiculares vel elliptico-oblongi,  $5-10 \times 5-8$  mm; labium inferius 10-20 mm lobis suborbicularibus vel elliptico-oblongis  $5-12 \times 4-12$  mm. *Stamina* in triente superiore orientia; filamenta c. 2 mm longa; antherarum lobi 1.5 mm longi maturitate atro-caerulei; staminodia minuta. *Ovarium* 3-5 mm longum, pilis patentibus glandulosis vel eglandulosis pubescens; stylus c. 2 mm longus, teres, valde curvatus; stigma capitatum epapillosum mucilagineum. *Capsula* (20-)30-40(-50) mm longa.

MALAWI. Mlanje Mt.: Chambe basin etc., i 1967, Hilliard & Burt 4507 (holo—E, iso—NU).

**Streptocarpus pogonites** Hilliard & Burt, *species nova* forma corollae et tubo intus purpureo-striato *S. montano* affinis, inflorescentia stricta filamentis rectis fructibus multo brevioribus rhizomate carente distinguitur. Foliis *S. galpinii*, quocum habitat, valde similis, sed floribus minoribus haud campanulatis pedicellis brevioribus inter alia longe recedit.

*Herba* acaulis, perennis. *Folia* ad 5 usque, prostrata, usque ad  $130 \times 55$  mm, margine minute crenata, basi cuneata ad cordata, apice marcido, supra viridia, subtus pallidiora venis interdum purpurascens, utrinque sericeo-pilosa. *Inflorescentiae* 20-40-florae, 2-3 seriatim ex apice petioli brevissimi orientes, omnino dense glanduloso-pilosae. *Pedunculi* ad 100 mm longi, robustiores, virides. *Bractaeae* ellipticae, ad  $10 \times 2$  mm, virides. *Pedicelli* ad 8 mm, virides. *Calyx* ad basin in segmenta 5 lanceolata c.  $4-5 \times 1$  mm divisus. *Corolla* 9-10 mm longa; tubus cylindricus, c. 5 mm longus, 4 mm diametro, deorsum leviter curvatus, extra albus basi violaceo-tinctus dense glanduloso-pilosus ad basin versus glabrescens, intus albus cum lineis 10 rubro-violaceis, glaber lineis duobus pilorum simplicibus obtusis in tecto exceptis; limbus obliquus, albus, intus glaber, extra glanduloso-pilosus, labio superiore lobis 2 ellipticis c.  $2 \times 1.5$  mm erectis, labio inferiore c. 4 mm longo lobis ellipticis c.  $2.5 \times 2$  mm. *Stamina* in triente inferiore tubi orientia;

filamenta 2.5 mm longa, alba, versus apicem rubro-violaceo-tincta, glabra; antherae 1.5 mm longae, albae; staminodia 3, minuta. *Discus* annularis, aurantiacus. *Ovarium* pyramidale, c. 2 mm longum, viride, pilis acutis erectis indutum; stylus 2 mm longus, glaber, teres ad apicem curvatum versus leviter complanatus ex ore corollae supra stamina protrusus; stigma primum truncatum deinde aequaliter bilabiatum, papillosum. *Capsula* c. 6 × 4 mm, basi styli persistente prominenter apiculata.

TRANSVAAL. Barberton distr.: 2 miles from Havelock on Barberton road, Hilliard 2953 (holo—NU, iso—E, K, PRE).

***Streptocarpus primulifolius*** Gandoger subsp. ***formosus*** Hilliard & Burtt, ***subspecies nova*** a typo corollis in fauce lutea maculis parvis violaceo-purpureis insuper notata, lobis roseo-violaceis ad margines intensius coloratis, labio inferiore lineis violaceis interruptis praedito.

SOUTH AFRICA. E Cape Province: Port St. Johns, 1963, *J. K. Marshall* cult. in R.B.G. Edinburgh, C. 4207 (E); Natal: Port Shepstone distr., N edge of Umtamvuna gorge, c. 8 miles from Port Edward on Izingolweni road, 450 m, 1 i 1963, Hilliard 1133 (E, NU); *ibidem*, 2 i 1965, Hilliard & Burtt B. 3010 (holo—E, iso—NU), cult. in R.B.G. Edinburgh, C. 4798 (E); Oribi gorge, c. 244 m, Hilliard 2607 (NU), 2791 (E, NU), Burtt B. 2992, cult. in R.B.G. Edinburgh, C. 4753 (E); Farm 'Excelsior', near Paddock, gorge of Vungu river, 8 viii 1965, Strey 5922 (NH); *ibidem*, 21 xii 1965, Hilliard & Burtt 3375 (E, NU), cult. in R.B.G. Edinburgh, C. 5081 (E).